

Date: April 2004

State of New Jersey Department of Community Affairs Division of Codes and Standards PO Box 802 Trenton, New Jersey 08625-0802



Susan Bass Levin Commissioner

Subject: **Liquefied Petroleum Gas**

Inspections

Reference: N.J.A.C. 5:23-3.11(j)

In 1998, a number of programs that were once administered by the New Jersey Department of Labor were transferred to the Department of Community Affairs (DCA). Among them was a program for the inspection of Liquefied Petroleum Gas (LPG) installations. The Bureau of Code Services within the DCA is responsible for the plan review and installation inspections of certain LPG installations, while the local enforcing agency is responsible for others. Therefore, there is some interface between the two.

Through propane retailers serving on the Liquefied Petroleum Gas Education and Safety Board, the DCA has learned that there is some confusion regarding jurisdiction for newly installed LPG systems and the application of standards governing the installation of LPG systems. The local enforcing agencies use the International Fuel Gas Code (IFGC), which references National Fire Protection Association (NFPA) 58 for storage systems and contains its own piping system requirements. The Bureau of Code Services uses the NFPA 54 and 58 standards to govern propane installations. This bulletin is issued to clarify the jurisdiction of the local enforcing agency and the application of these referenced standards to new LPG systems.

0. Who is responsible for inspecting the installation of propane systems?

A. The plan review/installation of a propane system is performed by either the local enforcing agency or the Bureau of Code Services depending on the size of the tank, the duration of the installation, and the function of the tank (type of withdraw). The following chart shows who is responsible. In some cases, the rules require the applicant to submit a "Notice of LP-Gas Installation" to the DCA. Code officials should ensure that the notice has been submitted prior to issuing a Certificate of Approval, when applicable. The column to the far right indicates when a Notice of LP-Gas Installation is required to be submitted.

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Type of Withdraw	Installation Duration	Aggregate Size of System ²	Tank Plan Review/ Inspection by	Piping Plan Review/ Inspection by	Notice of Propane Installation Required
Liquid (generally for filling barbeque cylinders or delivery trucks)	N/A	Any	Bureau of Code Services	Bureau of Code Services	No
Vapor (generally for heating or cooking)	Temporary ³	1 - 250 gallons water capacity	Local Enforcing Agency	Local Enforcing Agency	No
	Temporary ³	251 - 2000 gallons water capacity	Local Enforcing Agency	Local Enforcing Agency	Yes
	Temporary³	2001 gallons and above water capacity	Bureau of Code Services	Bureau of Code Services	Yes
	Permanent	2000 gallons water capacity and under	Local Enforcing Agency	Local Enforcing Agency	Yes
	Permanent	Over 2000 gallons water capacity	Bureau of Code Services	Bureau of Code Services/Local Enforcing Agency ¹	No

¹Vapor piping outside is under the jurisdiction of the Bureau of Code Services. Vapor piping within the building is under the jurisdiction of the local enforcing agency.

²System includes all tanks that are connected to a common piping system.

³Temporary is six months or less.

- **Q.** For installations under the Uniform Construction Code (UCC) (performed by the local enforcing agency), which technical sections of the permit application does the applicant need to submit?
- **A.** For installations under the UCC (performed by the local enforcing agency), only a Plumbing Technical Section is required.
- **Q.** For installations under the Bureau of Code Services, what documentation do I need before granting a Certificate of Occupancy for the building?
- **A.** For installations that are plan reviewed and inspected by the Bureau of Code Services, there are two approvals issued. When the plans for the installation are approved by the Bureau of Code Services, a "Notice of Pre-Installation Approval" is sent to the local enforcing agency. When the installation has been inspected and

approved, the Bureau of Code Services issues a Certificate of Approval for the installation. Prior to issuing a Certificate of Occupancy, a copy of the "Permit to Operate and Fill" issued by the Bureau of Code Services should be obtained.

Q. Where there is joint responsibility for piping, who inspects which portion of the piping system?

- A. Where there is joint responsibility for piping, the Bureau of Code Services inspects the pipe outside to the second stage pressure regulator, which is normally installed near the point where the pipe enters the building. The plumbing inspector inspects the pipe from the second stage pressure regulator to the various appliances installed. In some rare cases, there may be only one regulator. In those cases, the jurisdiction of the local enforcing agency begins inside the building. Though the Bureau of Code Services uses NFPA 58 for inspections and the UCC references the IFGC, the sizing of the line should be the same since the sizing charts found in the NFPA and IFGC are identical. It should also be noted that the sizing tables used for natural gas are not appropriate for use with propane because of the differences in delivery pressure and specific gravity.
- **Q.** What differences are there between NFPA 58 and the IFGC?
- **A.** The IFGC allows a burial depth of 12 inches for propane lines, while the NFPA requires 18 inches. This is not a conflict, since the Bureau of Code Services and the local enforcing agency never have joint responsibility for underground lines. However, installers need to remember that those lines listed as under the jurisdiction of the Bureau of Code Services (in the table on the opposite page) need to be installed 18 inches below grade.
- **Q.** Is it acceptable to support above-ground propane tanks by means of the ground only?
- **A.** No. According to NFPA 58, tanks must be supported with masonry or other noncombustible structural supports.
- **Q**. What is required for temporary installations?
- **A.** The following are some items that must be inspected by the local municipal inspectors for a temporary LPG installation:
 - 1. The location and protection of the tank(s) outside the building (this includes protection from motor vehicle/construction equipment impact);
 - 2. The proper labeled tank(s) for the intended use;
 - 3. The proper supports under the tank(s);
 - 4. The proper shut-off valves and piping materials;
 - 5. The proper protection of the piping from the tank(s) to the piece of equipment or appliance in the building;
 - 6. The proper gas pressure regulators;
 - 7. The labeled equipment or appliance for the intended use.

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The installation of the tanks must meet the requirements of NFPA 58 – 1998 edition. The piping installation must meet the requirements of the IFGC.

It is very important that all the temporary LPG vapor delivery installations, with an aggregate water capacity of 2000 gallons or less, be inspected by the local municipal inspectors for code compliance, and for the safety and protection of all projects. The size of an installation is based on the size of all tanks that are connected to a common piping system.

If you have any questions, please contact the Bureau of Code Services, LPG Safety Unit at (609) 633-6835.